OIPE
AUG 0 9 2004
PATENT & TRADEMARK OFFICE

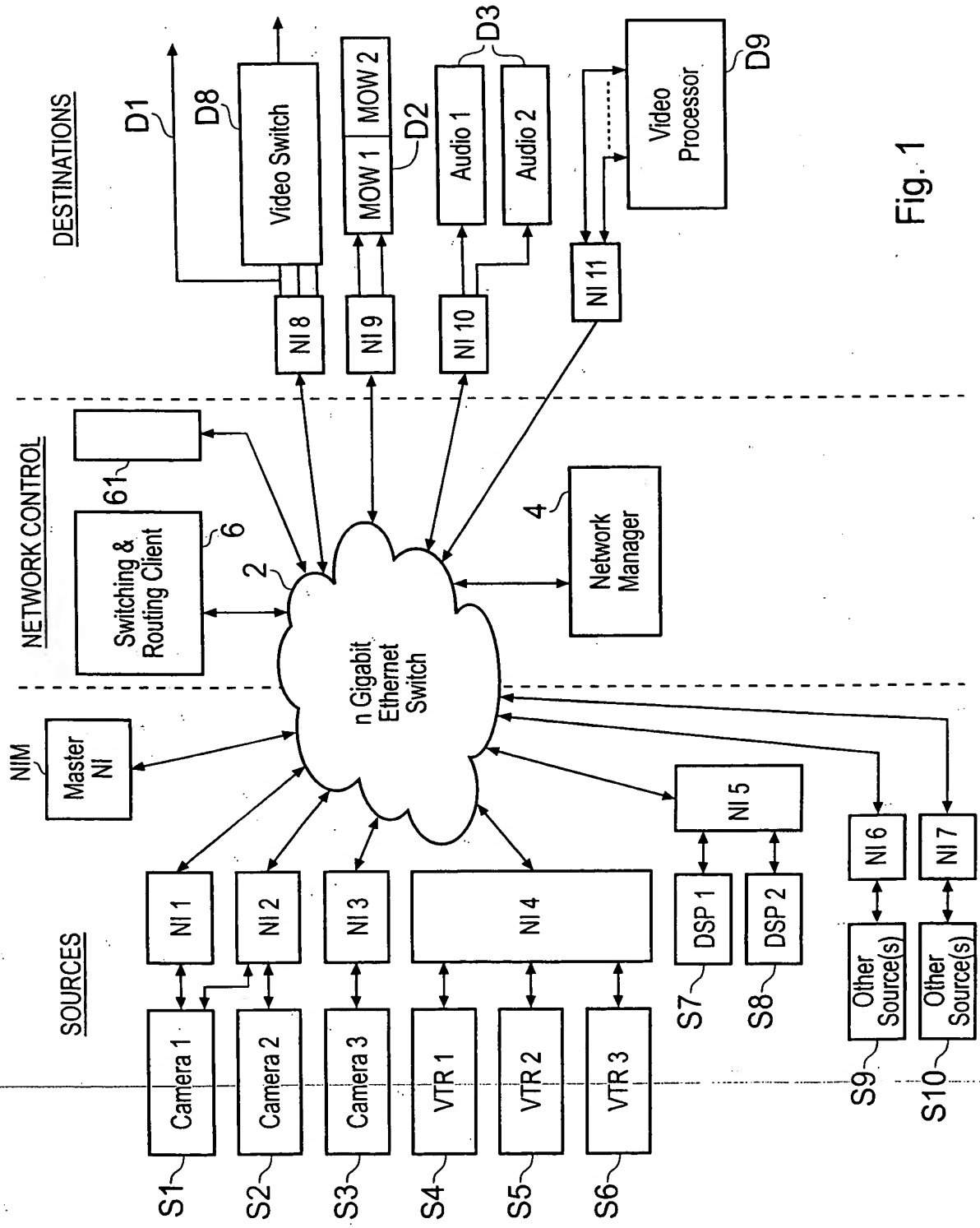


Fig. 1

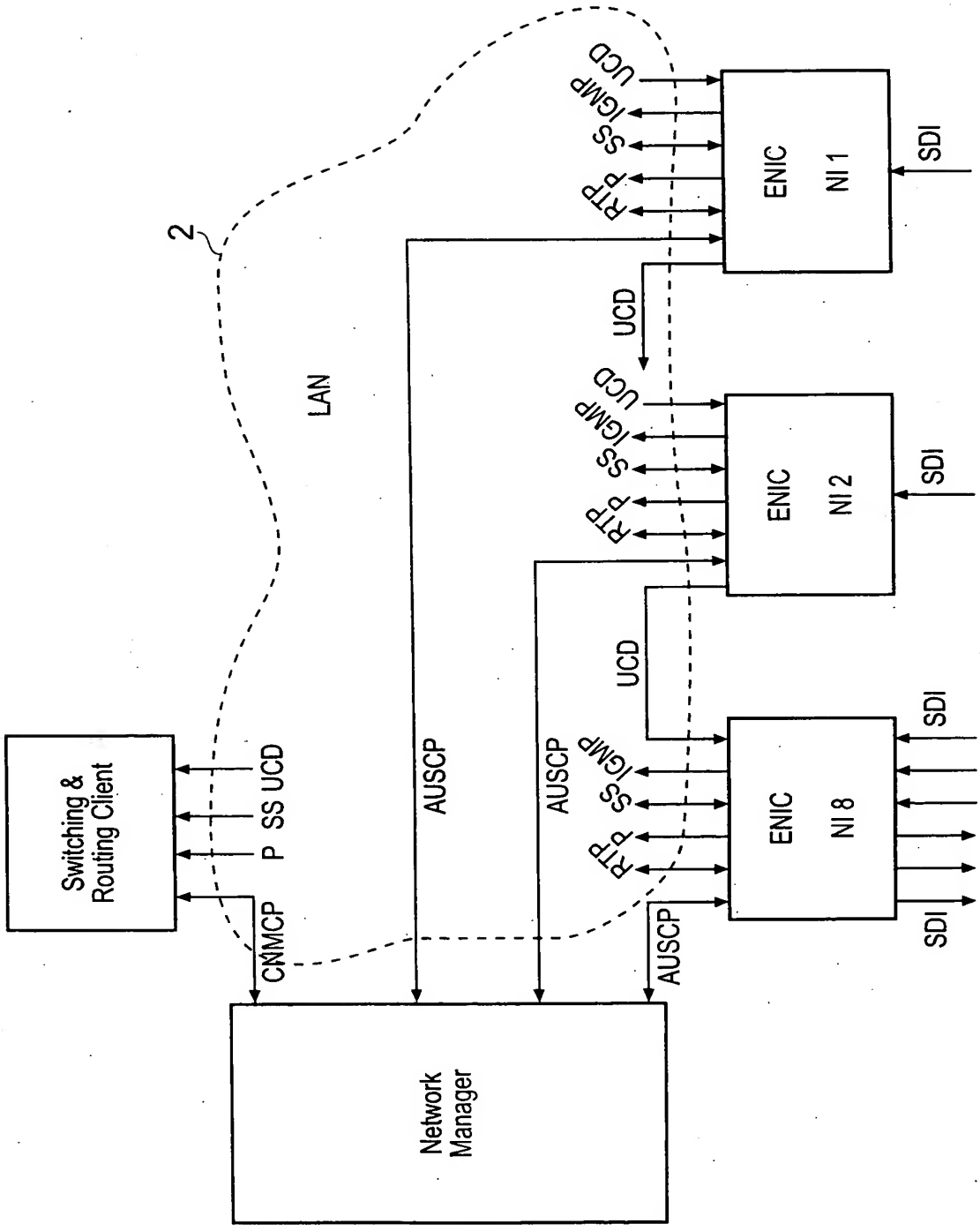

2
LAN
Switching & Routing Client
CNMCP
P SS UCD
AUSCP
AUSCP
AUSCP
Network Manager
ENIC NI 1
ENIC NI 2
ENIC NI 8
UCD
IGMP
SS
RTP
SDI

Fig. 2

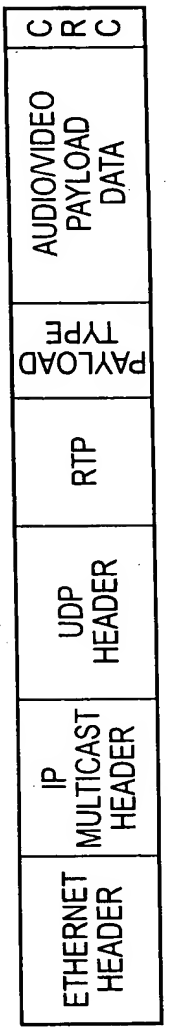


Fig. 3A AUDIO/VISUAL

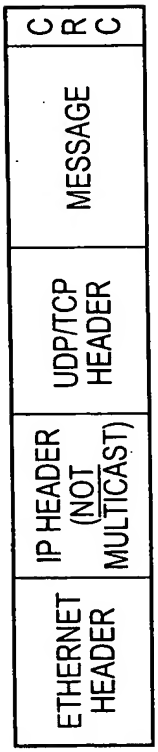


Fig. 3B AVSCP/CNMCP

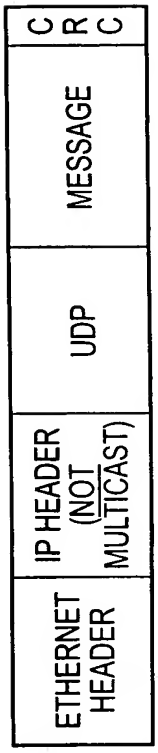


Fig. 3C

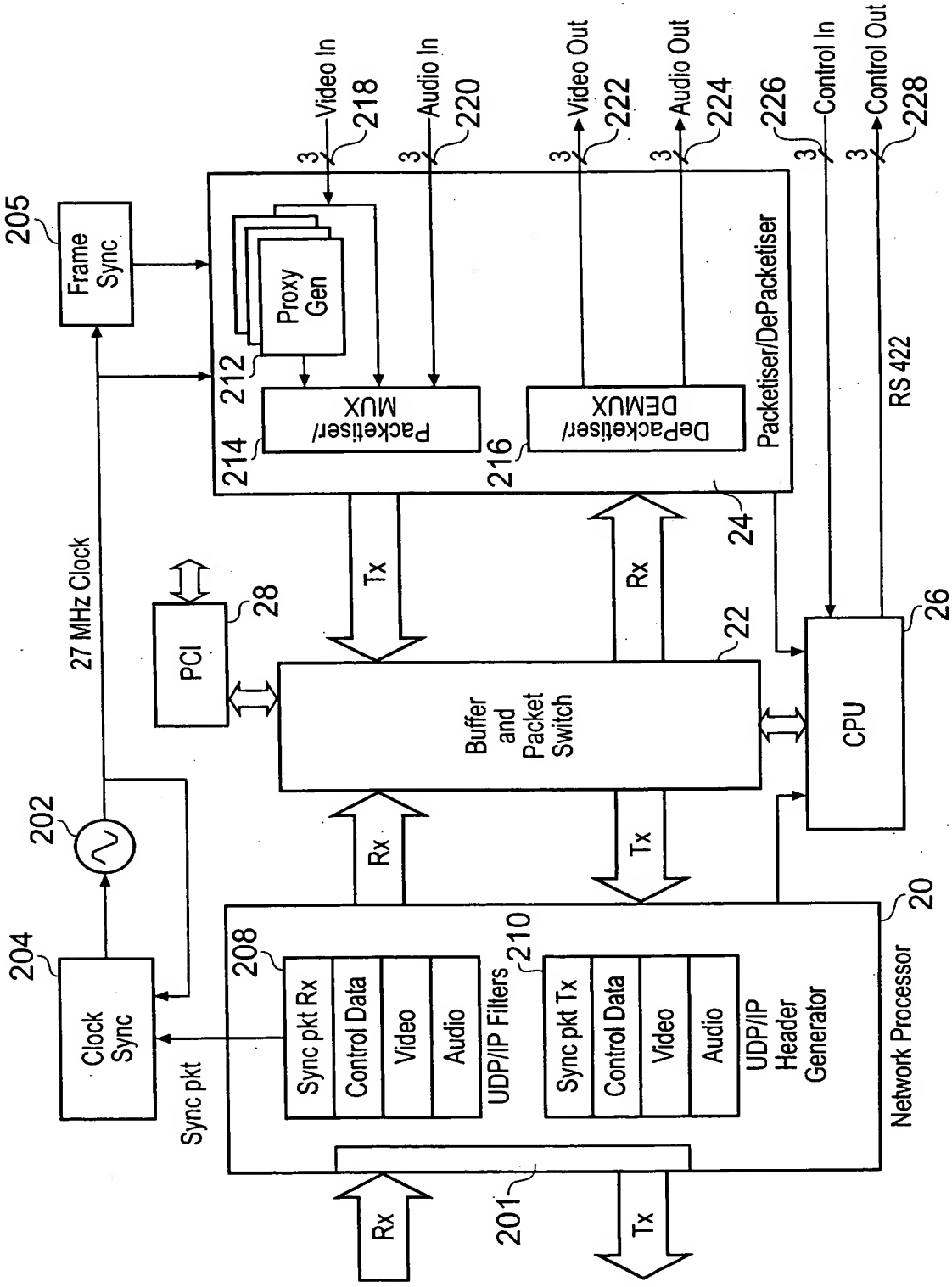
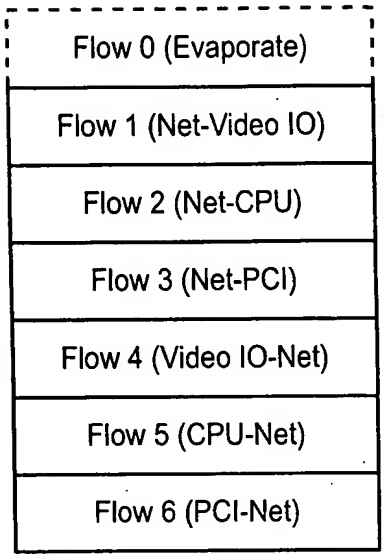
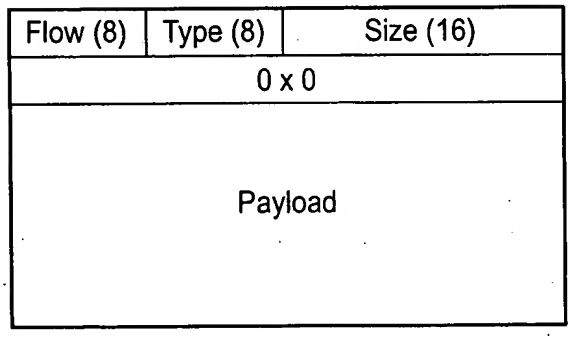

Video In
218
Audio In
220
Video Out
222
Audio Out
224
226
Control In
Control Out
228
205
Frame Sync
Proxy Gen
212
Packetiser/ MUX
214
DePacketiser/ DEMUX
216
Packetiser/DePacketiser
24
RS 422
27 MHz Clock
Tx
Rx
PCI
28
22
Buffer and Packet Switch
CPU
26
202
204
Clock Sync
Sync pkt
208
Sync pkt Rx
Control Data
Video
Audio
UDP/IP Filters
210
Sync pkt Tx
Control Data
Video
Audio
UDP/IP Header Generator
Network Processor
20
201

Fig. 4



Example of the current flow assignment

Fig. 5B



Example of a packet with a tag

Fig. 5A

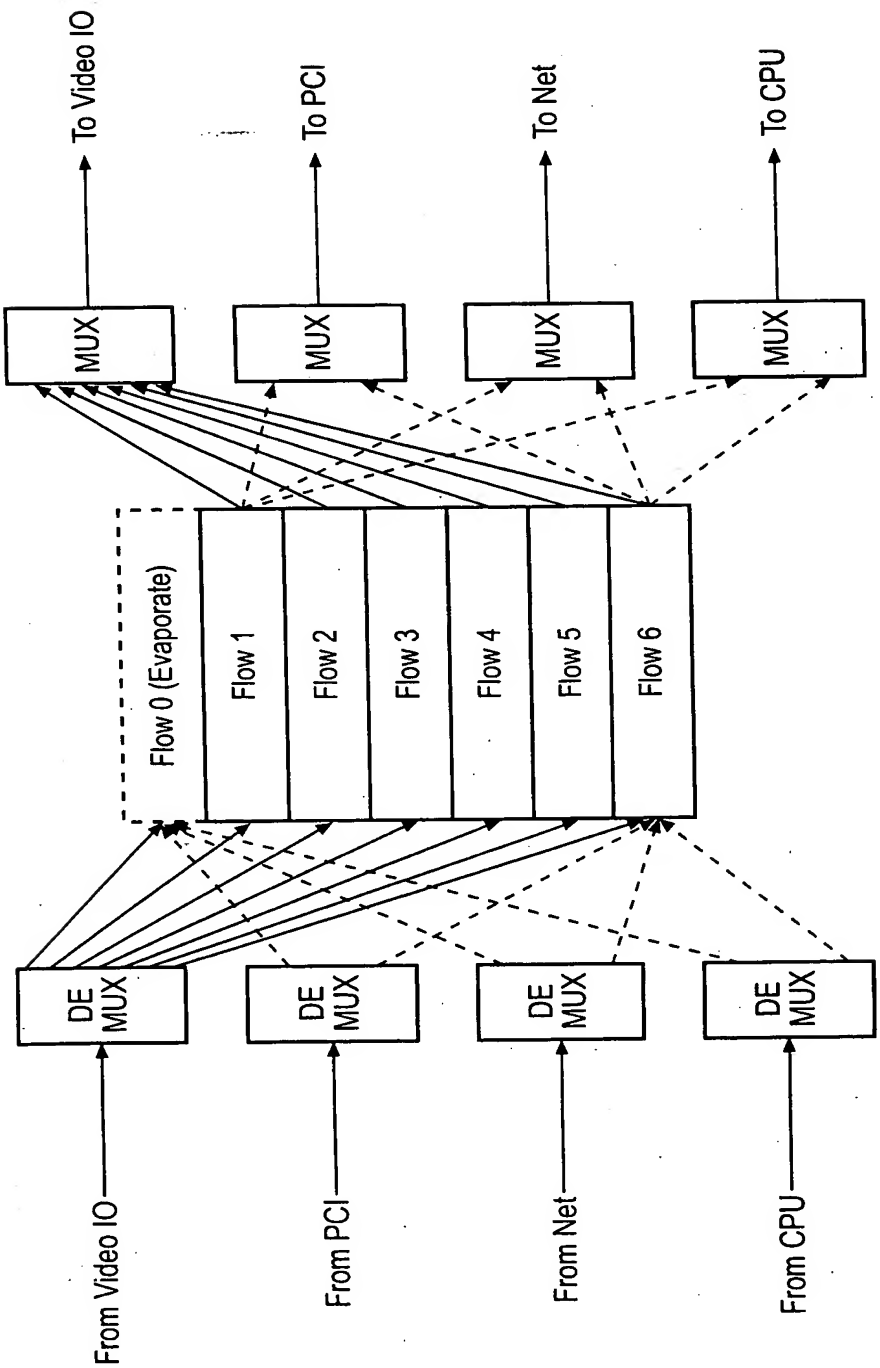

To Video IO
To PCI
To Net
To CPU
MUX
MUX
MUX
MUX
Flow 0 (Evaporate)
Flow 1
Flow 2
Flow 3
Flow 4
Flow 5
Flow 6
DE MUX
DE MUX
DE MUX
DE MUX
From Video IO
From PCI
From Net
From CPU

Fig. 5C

Fig. 6A

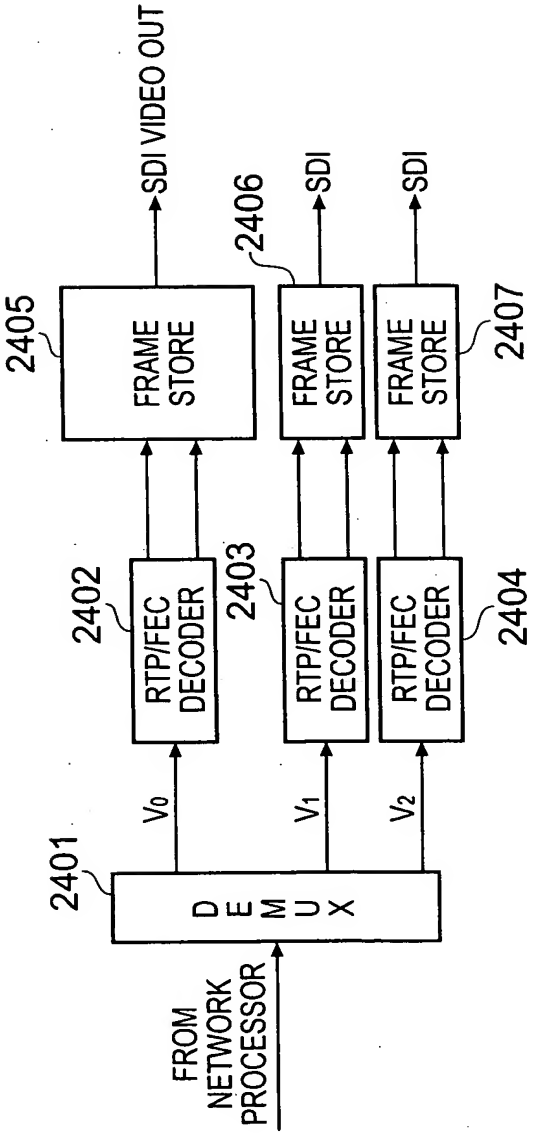
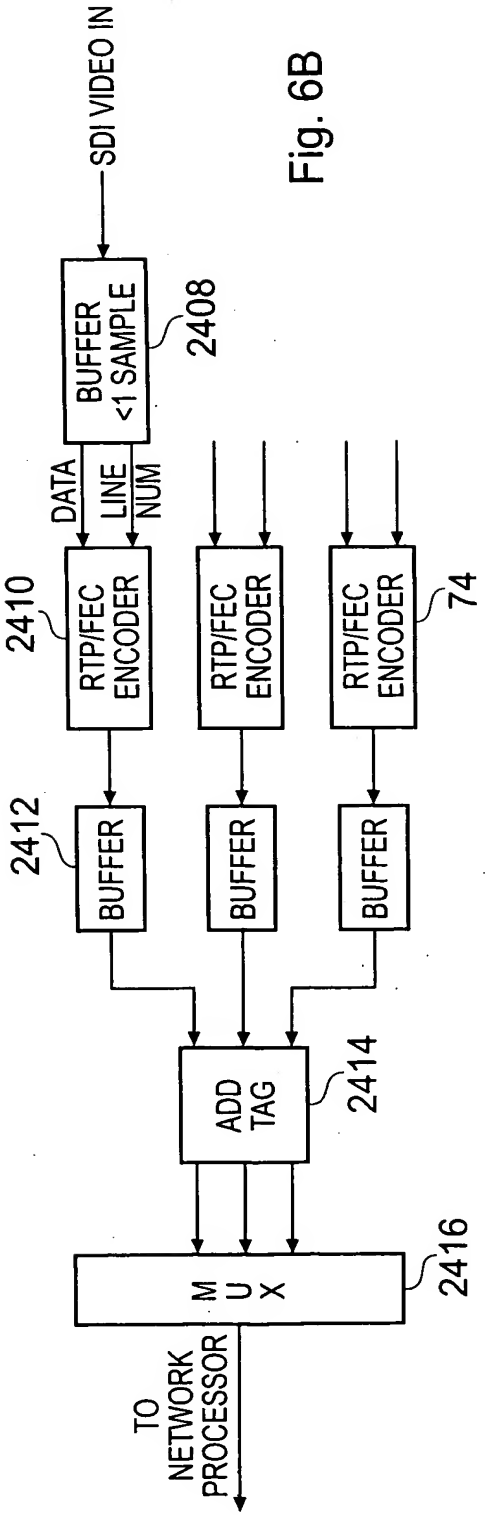

FROM NETWORK PROCESSOR
2401
DEMUX
V_0
V_1
V_2
2402
RTP/FEC DECODER
2403
RTP/FEC DECODER
2404
RTP/FEC DECODER
2405
FRAME STORE
2406
FRAME STORE
2407
FRAME STORE
SDI VIDEO OUT
SDI
SDI

Fig. 6B


SDI VIDEO IN
2408
BUFFER <1 SAMPLE
DATA
LINE NUM
2410
RTP/FEC ENCODER
RTP/FEC ENCODER
74
RTP/FEC ENCODER
2412
BUFFER
BUFFER
BUFFER
2414
ADD TAG
2416
MUX
TO NETWORK PROCESSOR

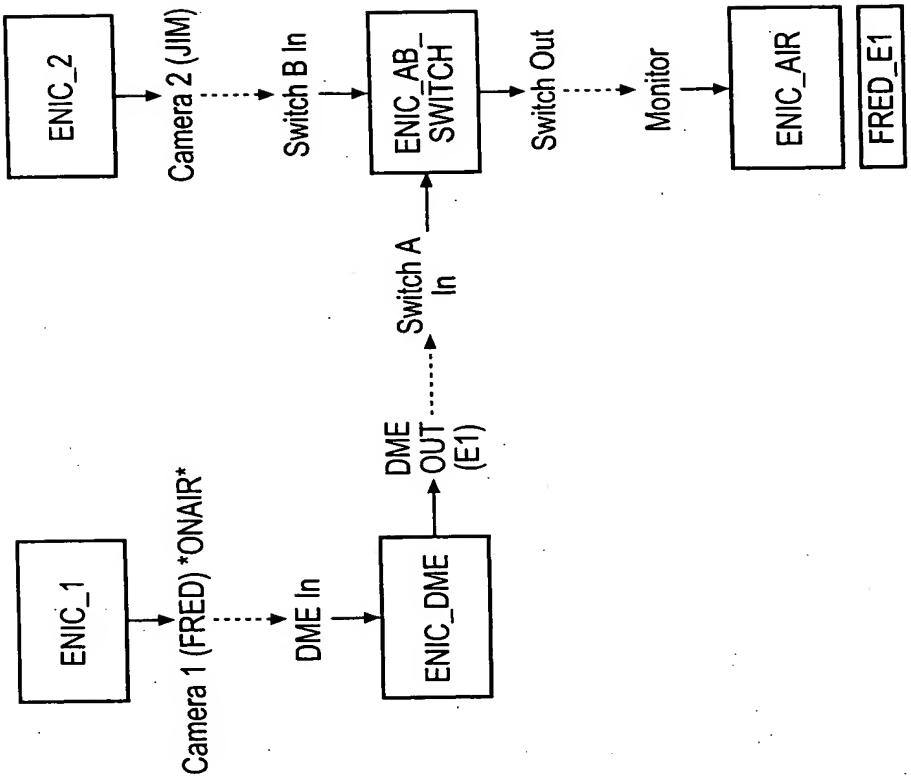

ENIC_1
Camera 1 (FRED) *ONAIR*
DME In
ENIC_DME
DME OUT (E1)
Switch A In
ENIC_2
Camera 2 (JIM)
Switch B In
ENIC_AB_SWITCH
Switch Out
Monitor
ENIC_AIR
FRED_E1

Fig. 7

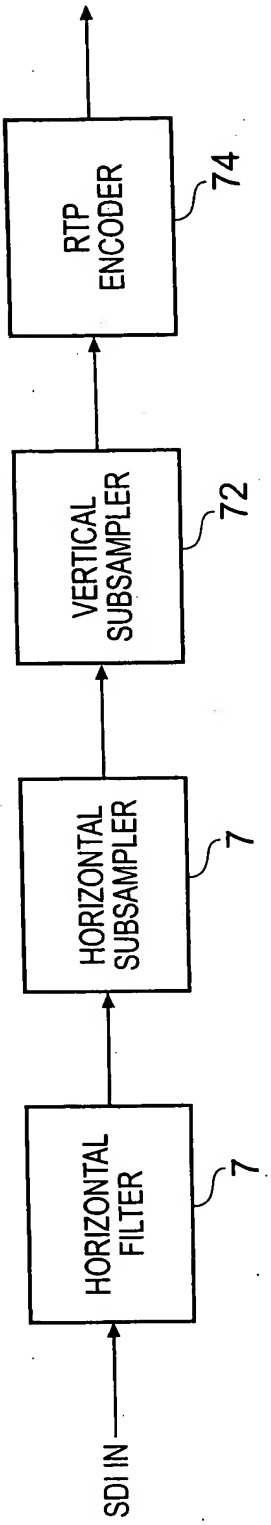

SDI IN
HORIZONTAL FILTER
7
HORIZONTAL SUBSAMPLER
7
VERTICAL SUBSAMPLER
72
RTP ENCODER
74

Fig. 8

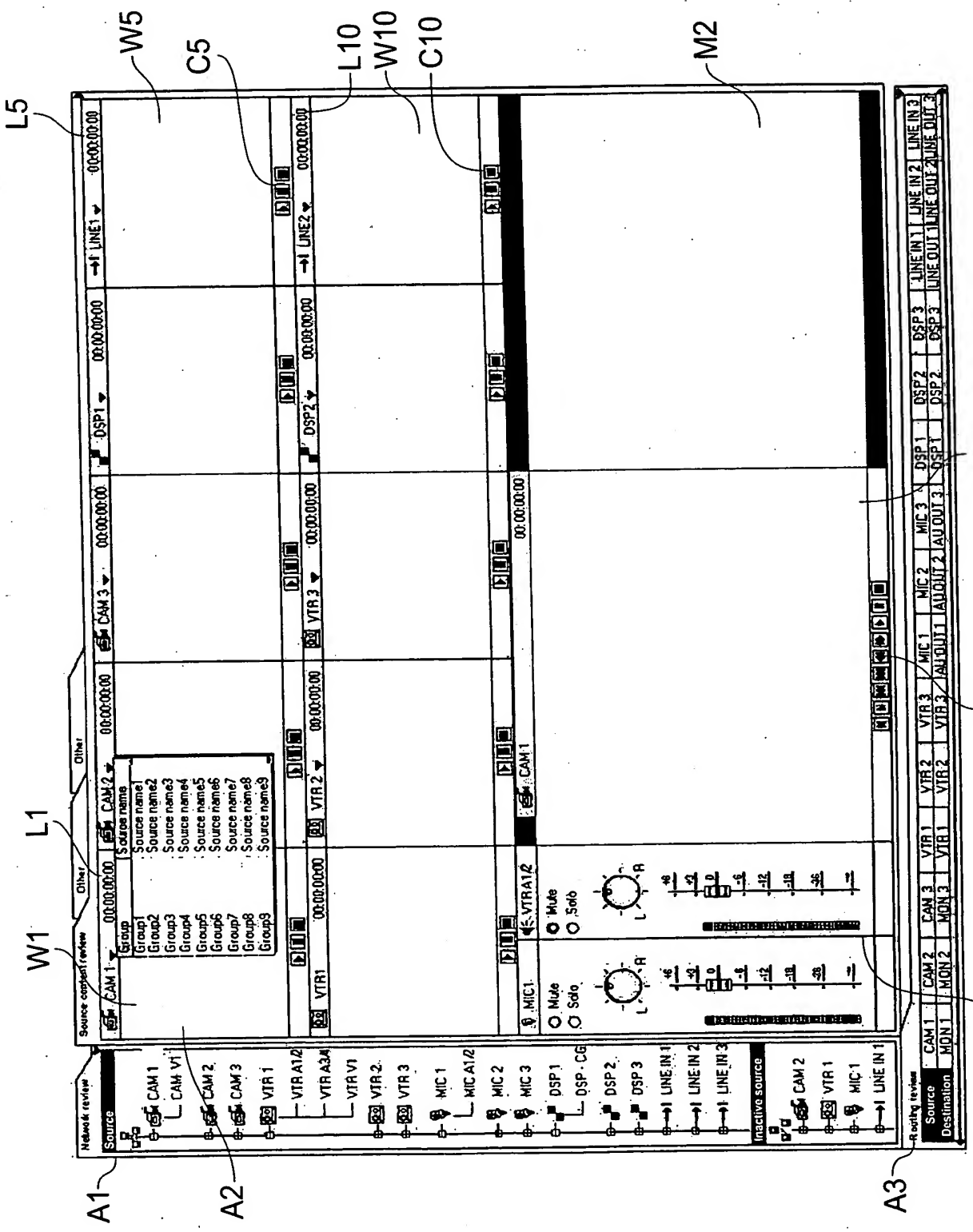


Fig. 9

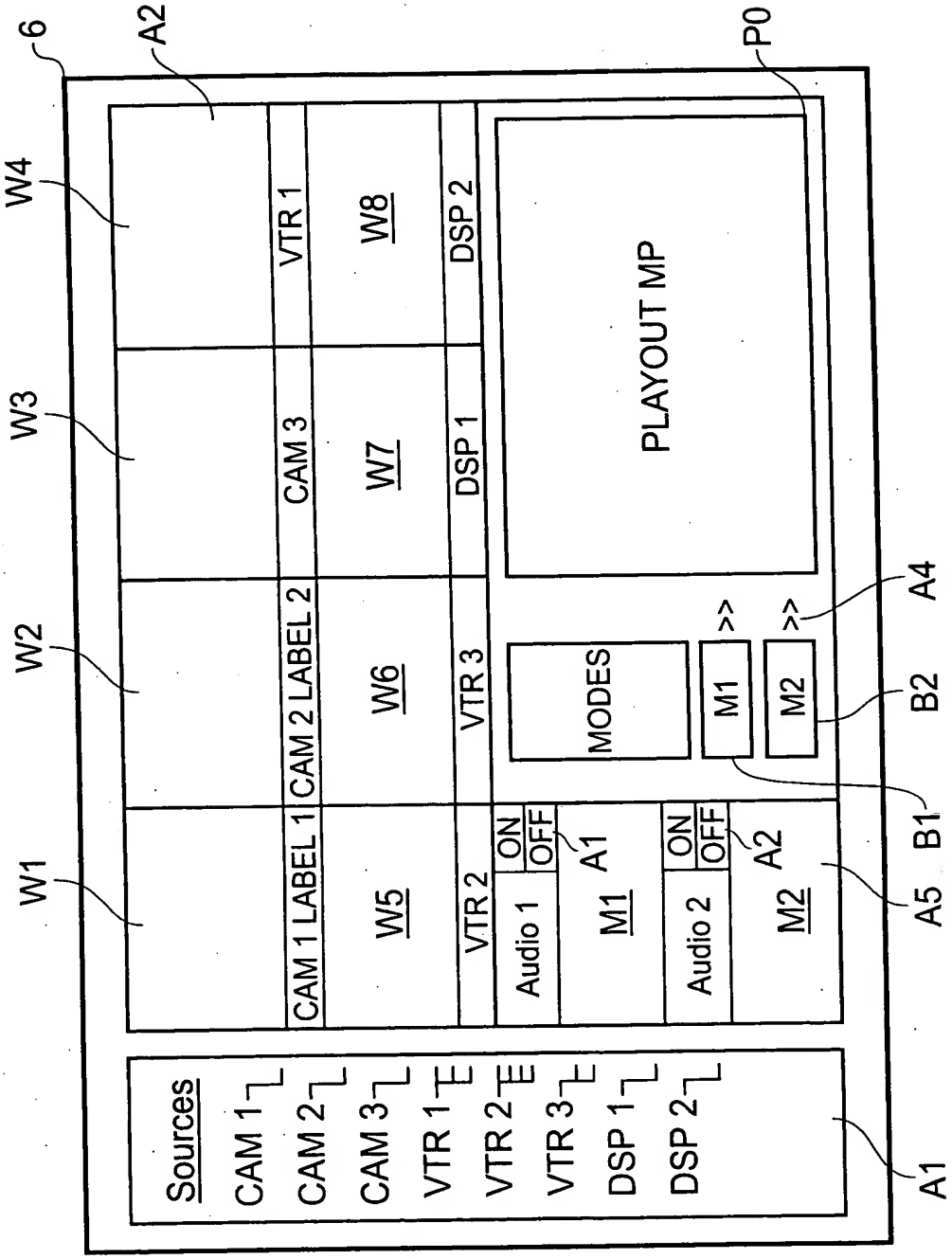

6
A2
P0
W4
W3
W2
W1
Sources
CAM 1
CAM 2
CAM 3
VTR 1
VTR 2
VTR 3
DSP 1
DSP 2
A1
CAM 1 LABEL 1
CAM 2 LABEL 2
CAM 3
VTR 1
DSP 2
W5
W6
W7
W8
VTR 2
VTR 3
DSP 1
PLAYOUT MP
Audio 1
ON
OFF
A1
M1
MODES
M1
M2
>>
>>
A4
B2
B1
Audio 2
ON
OFF
A2
M2
A5

Fig. 10

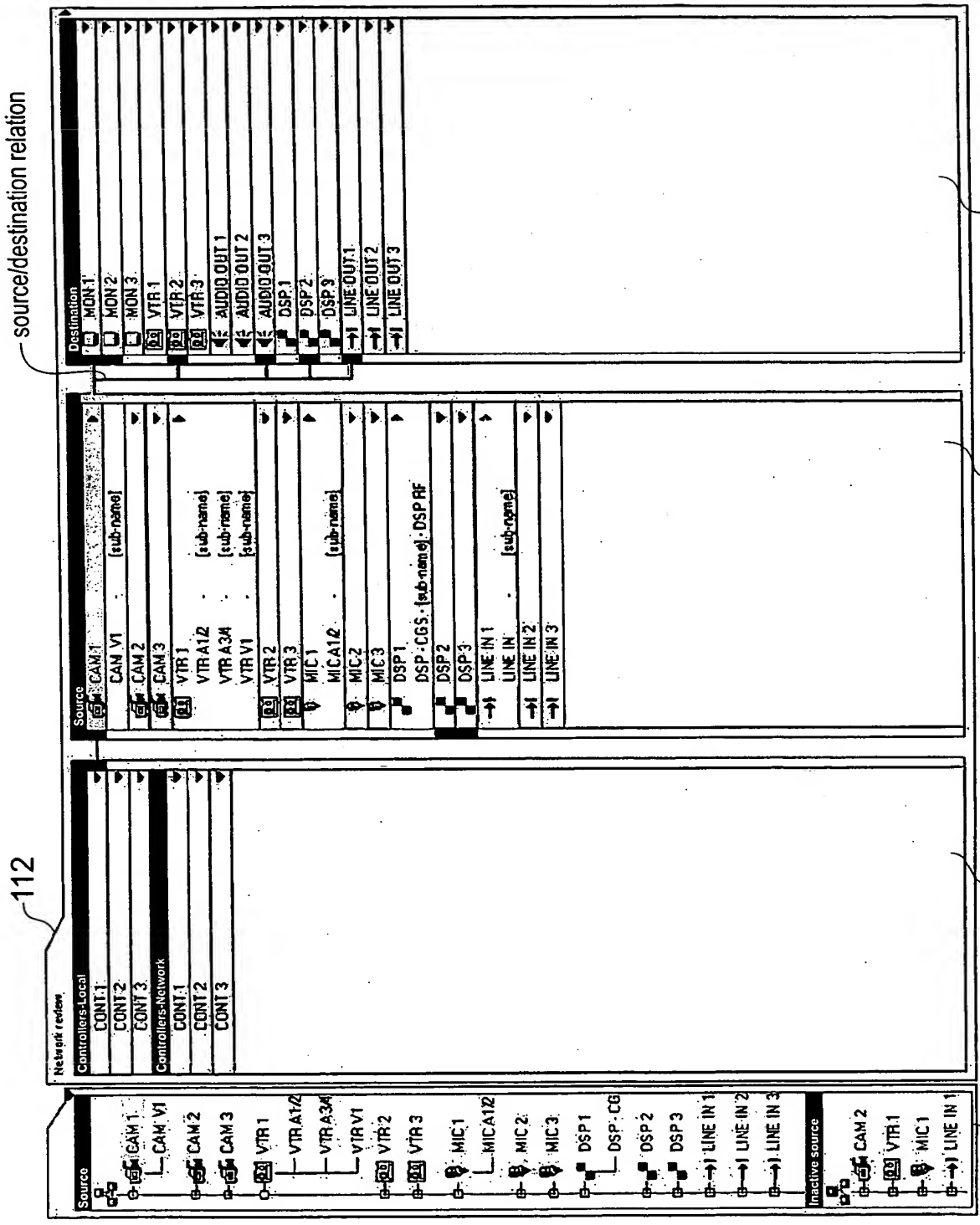

source/destination relation
112
110
114
116
118
Network review
Source
Controllers-Local
Controllers-Network
Destination
Inactive source
CAM 1
CAM V1
CAM 2
CAM 3
VTR 1
VTR A1/2
VTR A3/4
VTR V1
VTR 2
VTR 3
MIC 1
MIC A1/2
MIC 2
MIC 3
DSP 1
DSP - CG
DSP 2
DSP 3
LINE IN 1
LINE IN 2
LINE IN 3
MON 1
MON 2
MON 3
AUDIO OUT 1
AUDIO OUT 2
AUDIO OUT 3
LINE OUT 1
LINE OUT 2
LINE OUT 3
[sub-name]
DSP - CGS - [sub-name] - DSP AF

Fig. 11

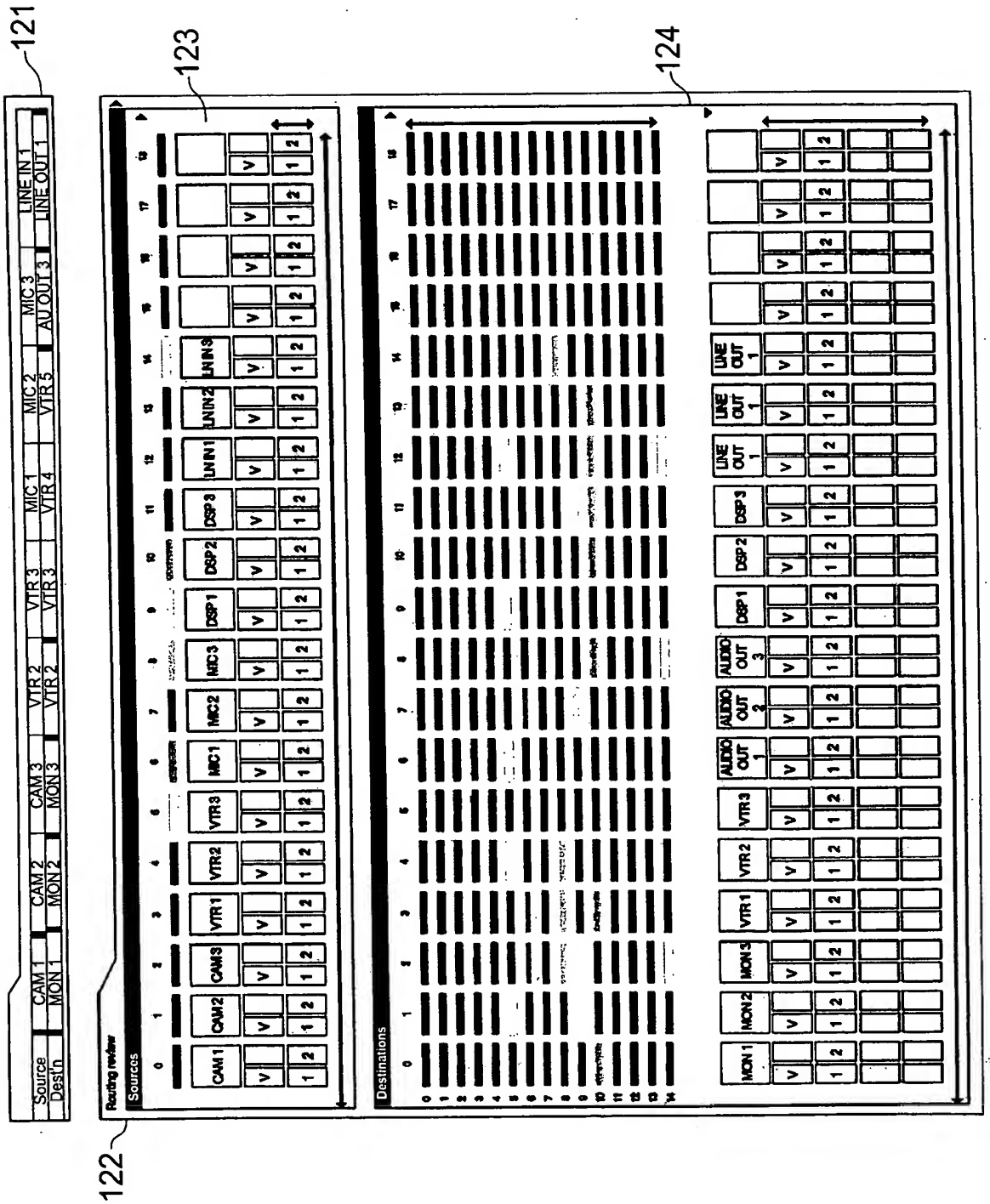

121
123
124
122
Source
Dest'n
CAM 1
MON 1
CAM 2
MON 2
CAM 3
MON 3
VTR 2
VTR 2
VTR 3
VTR 3
MIC 1
VTR 4
MIC 2
VTR 5
MIC 3
AU OUT 3
LINE IN 1
LINE OUT 1
Routing review
Sources
Destinations

Fig. 12

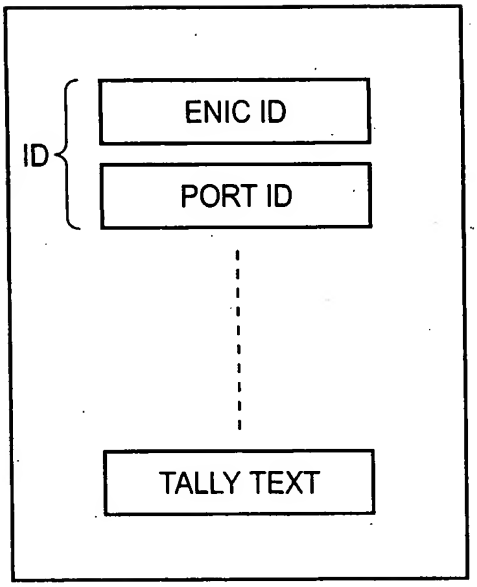


Fig. 13

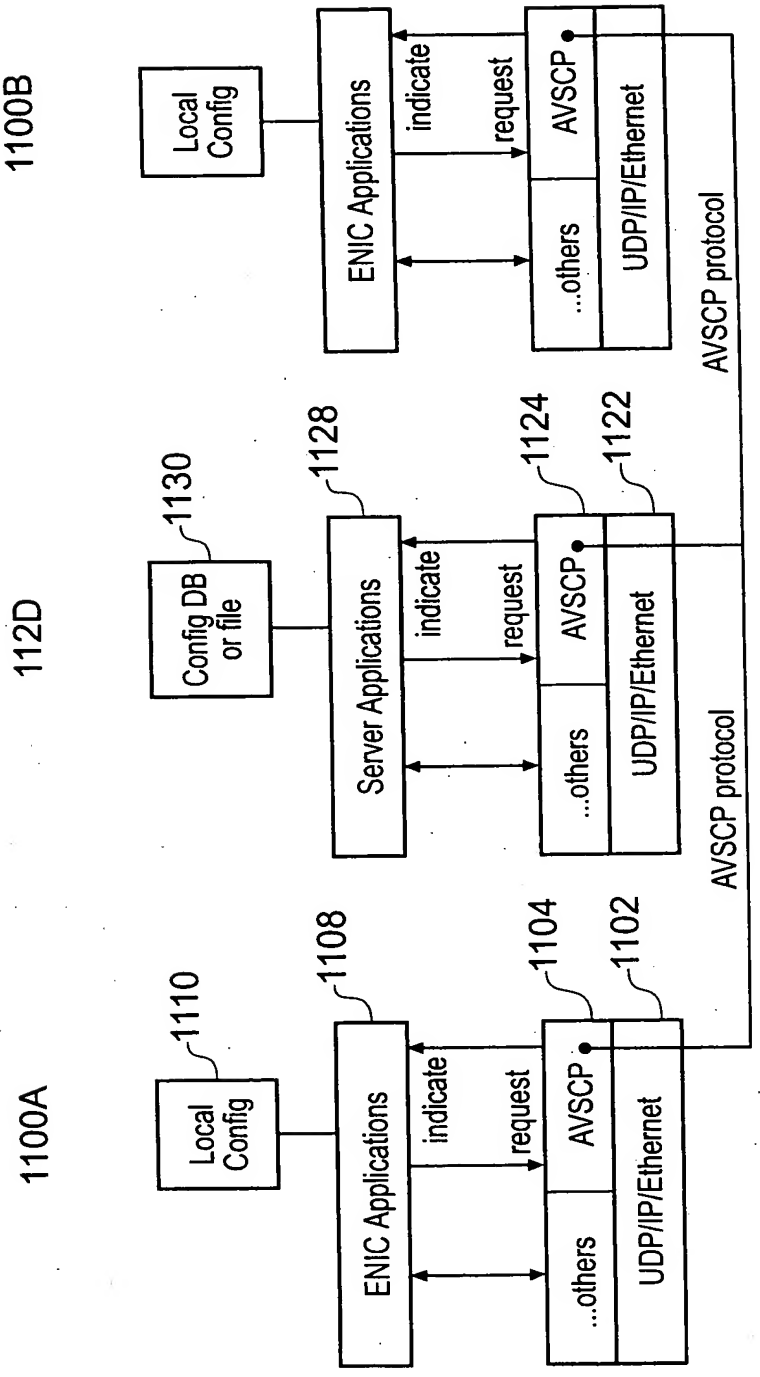

1100A
1100B
112D
Local Config
1110
ENIC Applications
1108
indicate
request
AVSCP
1104
...others
UDP/IP/Ethernet
1102
Config DB or file
1130
Server Applications
1128
indicate
request
AVSCP
1124
...others
UDP/IP/Ethernet
1122
Local Config
ENIC Applications
indicate
request
AVSCP
...others
UDP/IP/Ethernet
AVSCP protocol
AVSCP protocol

Fig. 14

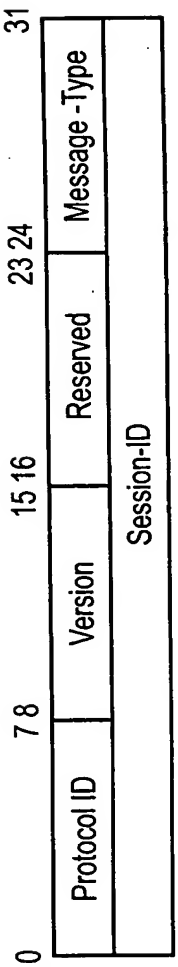

0
7 8
15 16
23 24
31
Protocol ID
Version
Reserved
Message - Type
Session-ID

Fig. 15